**WARNING**

A damaged or deteriorated fuel line presents a very dangerous fire hazard to both the rider and the vehicle if fuel should spill onto a hot engine or exhaust pipe.

Spark Arrester Cleaning

The spark arrester should be cleaned every 30 operating days.

WARNING

To avoid burning your hands, do not perform this cleaning operation with the exhaust system hot. Work in a well ventilated area (outside your garage) that is free of any fire hazards. Be sure to protect your eyes with safety glasses or goggles.

1. Place the ATC on level ground and set the parking brake.
2. Remove the bolt (A, **Figure 61**) securing the spark arrester and slide the unit out of the tailpipe (B, **Figure 61**).

3. Clean off accumulated carbon from the spark arrester with a scraper and wash off with solvent. Thoroughly dry with compressed air.

4. With the spark arrester removed, start the engine and rev it up a few times to blow out accumulated carbon from the tail section of the muffler. Continue until carbon stops coming out.

5. Turn the engine off and let the exhaust system cool down.

6. Install the spark arrester and install the bolt.

Wheel Bearings

There is no factory-recommended interval for cleaning and repacking the wheel bearings. They should be serviced whenever they are removed from the wheel hub or whenever there is the likelihood of water contamination (especially salt water). Service procedures are covered in Chapter Eight.

Steering Head Adjustment Check

The steering head is fitted with loose ball bearings. It should be checked every year of operation or after a serious spill.

Place the ATC up on wood block(s) so the front wheel is off the ground.

Hold onto the front fork tubes and gently rock the fork assembly back and forth. If you can feel looseness, refer to Chapter Eight.

Nuts, Bolts and Other Fasteners

Constant vibration can loosen many of the fasteners on the ATC. Check the tightness of all fasteners, especially the following:

- a. Engine mounting hardware.
- b. Engine crankcase covers.
- c. Handlebar and front forks.
- d. Gearshift lever.
- e. Brake pedal and lever.
- f. Exhaust system.

ENGINE TUNE-UP

A tune-up is general adjustment and maintenance to ensure peak engine performance. A complete tune-up should be performed every 30 operating days with normal riding. More frequent tune-ups may be required if the ATC is ridden hard or raced.

Table 5 summarizes tune-up specifications.

The spark plug should be routinely replaced at every other tune-up or if the electrodes show signs of erosion. Have new parts on hand before you begin.

Because different systems in an engine interact, the procedures should be done in the following order:

- a. Clean or replace the air filter element.
- b. Adjust valve clearance.
- c. Adjust camshaft chain tension.
- d. Run a compression test.
- e. Check or replace the spark plug.
- f. Check and adjust the ignition timing.
- g. Adjust the carburetor idle speed.

To perform a tune-up on your Honda, you will need the following tools and equipment:

- a. 18 mm spark plug wrench.
- b. Socket wrench and assorted sockets.
- c. Flat feeler gauge.
- d. 9 mm box wrench for adjusting valve clearance.
- e. Spark plug wire feeler gauge and gapper tool.
- f. Compression gauge.
- g. Ignition timing light.
- h. Portable tachometer.

VALVE CLEARANCE ADJUSTMENT

Valve clearance adjustment must be made with the engine cool, at room temperature (below 95° F/35° C). The correct valve clearance for both the intake and exhaust valves are as follows:

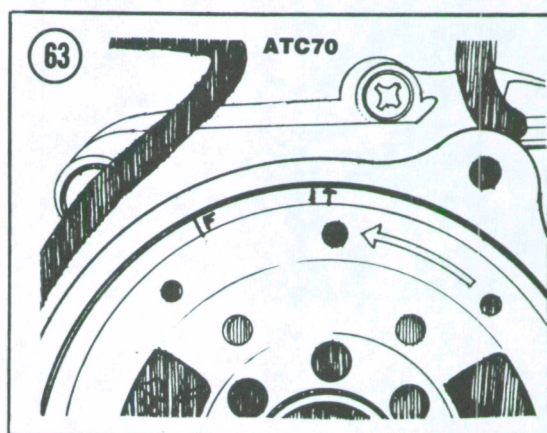
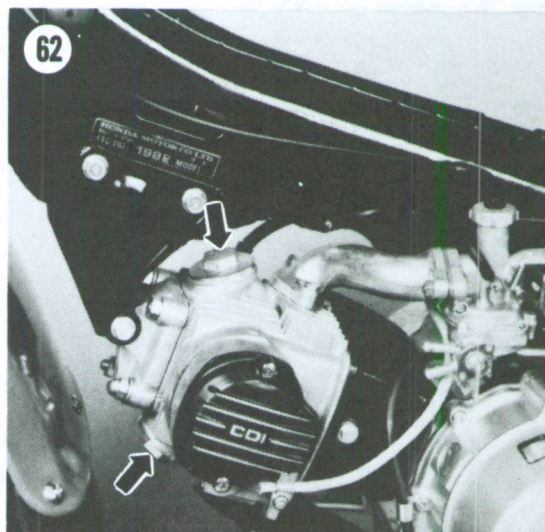
- a. ATC70 and ATC90: 0.05 mm (0.002 in.).
- b. ATC110 and ATC125M: 0.07 mm (0.005 in.).

The exhaust valve is located on the bottom of the engine and the intake valve is at the top of the engine.

1. Place the ATC on level ground and set the parking brake.
2. Remove the seat/rear fender assembly.
3. Remove the bolt securing the gearshift lever and remove the gearshift lever.
4. Remove the recoil starter assembly as described in Chapter Seven.
5. Remove both valve adjustment covers (Figure 62).
6. Remove the spark plug—this will make it easier to rotate the engine by hand.
7. On models so equipped, remove the timing inspection cover on the left-hand crankcase cover.
8. Using the nut (or bolt) on the alternator rotor, rotate the crankshaft *counterclockwise* until the piston is at top dead center (TDC) on the compression stroke.

NOTE

A piston at TDC on its compression stroke will have free play in both of the rocker arms, indicating that both the intake and exhaust valves are closed.



9. Make sure the "T" mark on the alternator rotor aligns with the fixed pointer either on the crankcase or alternator stator assembly. Refer to Figure 63 for ATC70 models or Figure 64 for ATC90, ATC110 and ATC125M models.

10. If both rocker arms are not loose with the engine timing mark on the "T," rotate the engine an additional 360° until both valves have free play.
11. Check the clearance of both the intake and exhaust valves by inserting a flat feeler gauge between the rocker arm pad and the camshaft lobe (Figure 65). If the clearance is correct, there will be a slight resistance on the feeler gauge when it is inserted and withdrawn.

12. To correct the clearance, use a 9 mm wrench and back off the locknut. Screw the adjuster in or out so there is a slight resistance felt on the feeler gauge. Hold the adjuster to prevent it from turning further and tighten the locknut securely. Then recheck the clearance to make sure the adjuster did

Copyright of Honda ATC, TRX, FOURTRX 70-125, 1970-1987 is the property of Penton Media, Inc. ("Clymer") and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.